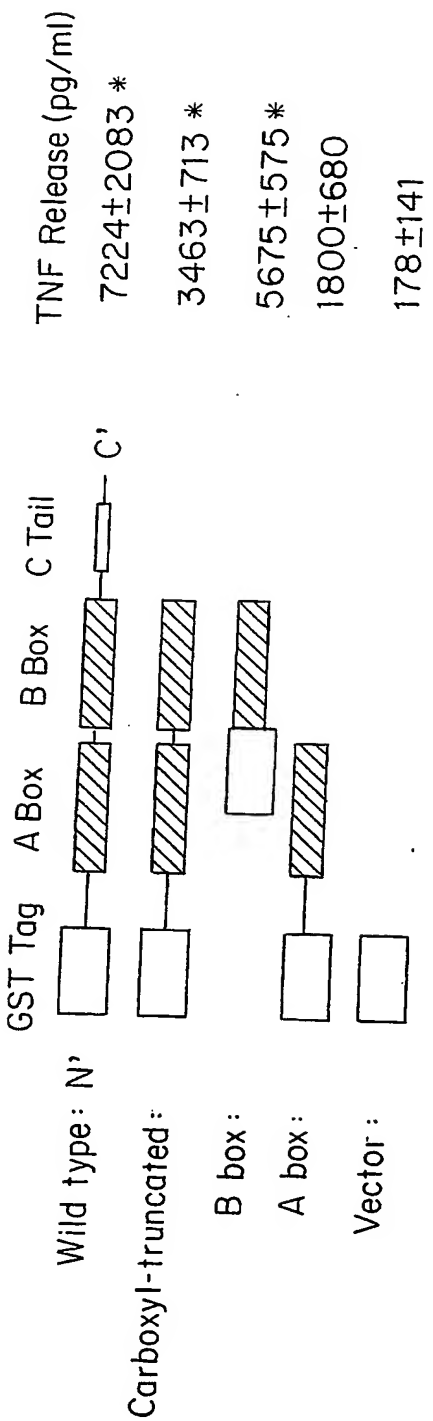
TNF Release (pg/ml)
7224±2083 *
3463±713 *
5675±575 *
1800±680
178±141
GST Tag
A Box
B Box
C Tail
C'
N'
Wild type:
Carboxyl-truncated:
B box:
A box:
Vector:

FIG. 1

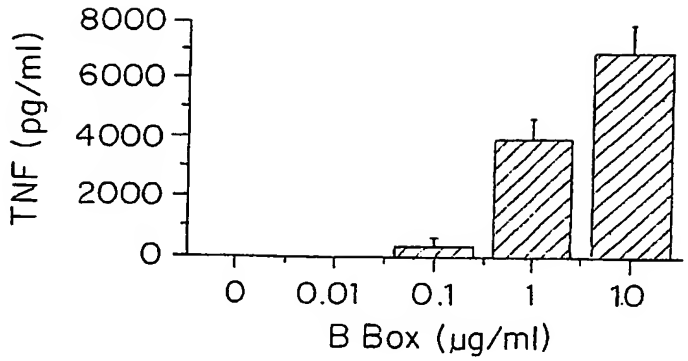

FIG. 2A

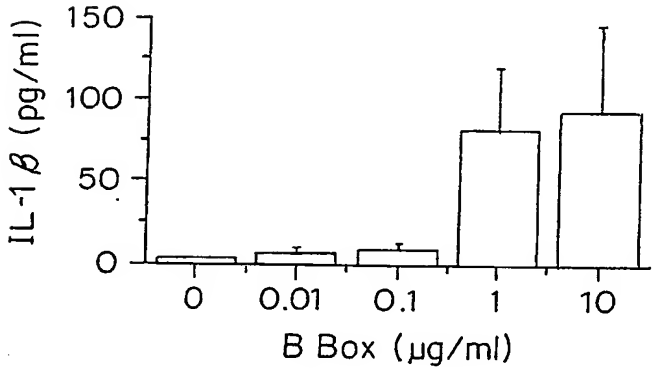

FIG. 2B

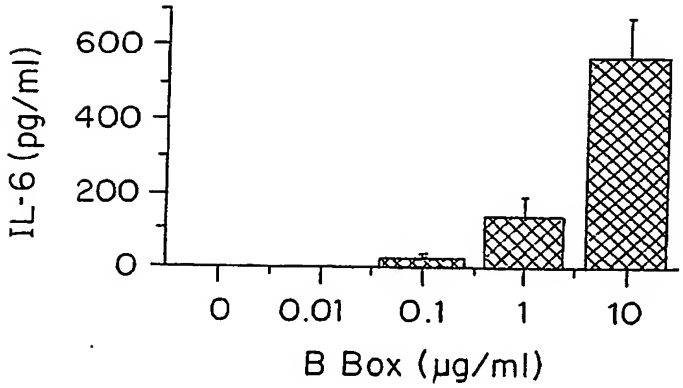

FIG. 2C

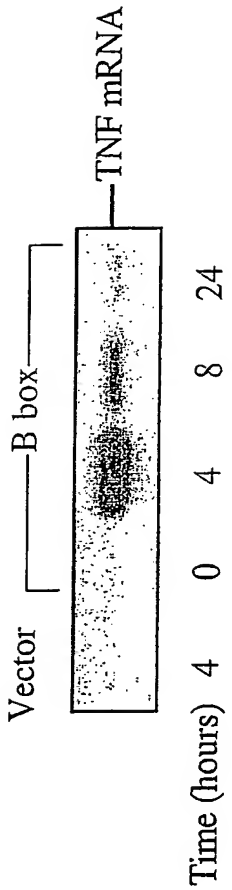

FIG. 2D

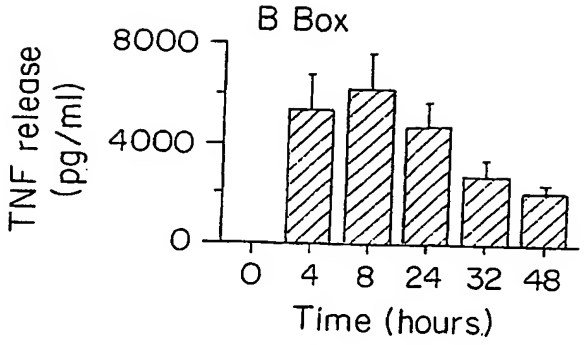

FIG. 2E

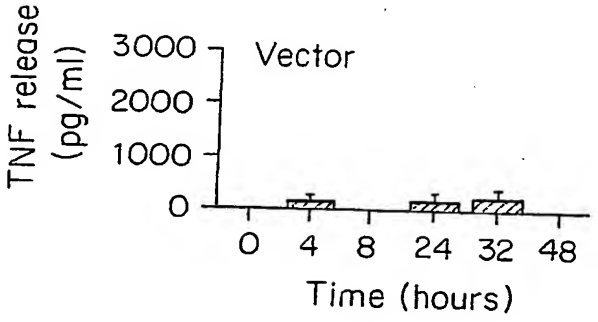

FIG. 2F

B box mutants	TNF release (pg/ml)
B box: 74 amino acids	5675±575
1-20	2100±756
16-35	100±10
30-49	120±75
45-64	100±36
60-74	100±20

FIG. 3

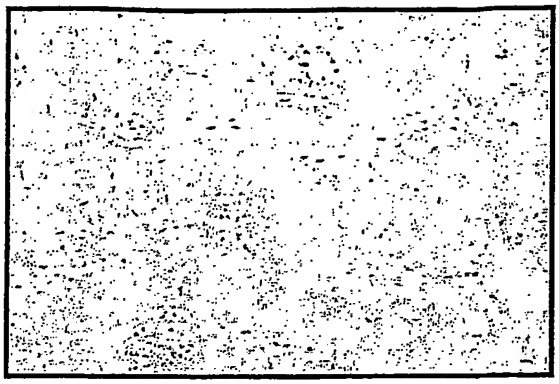

FIG. 4A

FIG. 4B

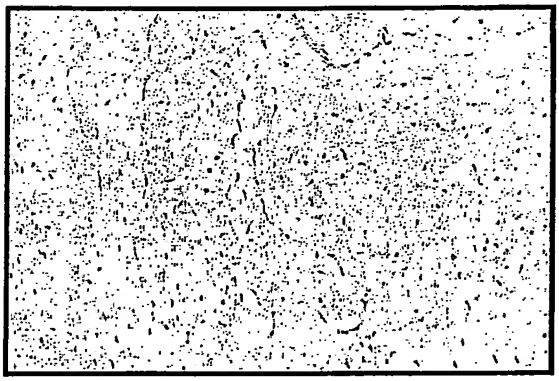

FIG. 4C

FIG. 4D

FIG.4E

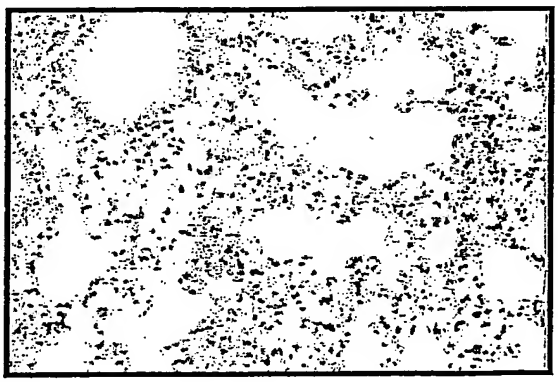

FIG. 4F

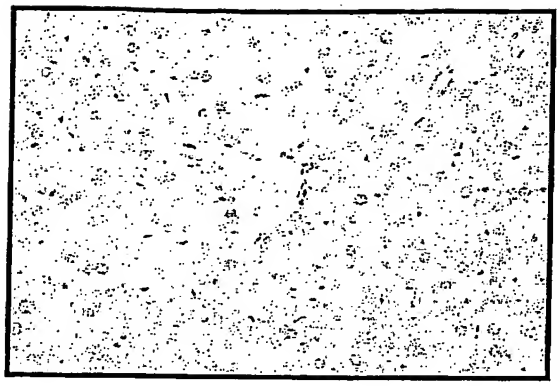

FIG. 4G

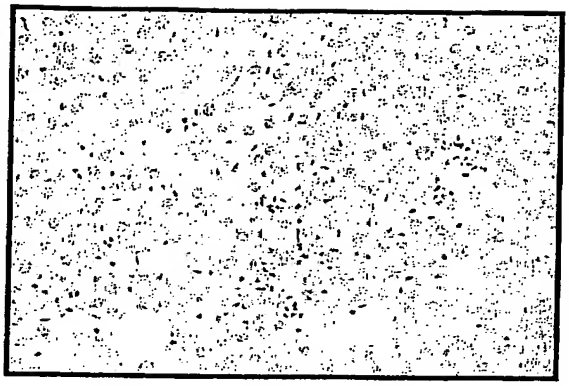

FIG. 4H

FIG. 4I

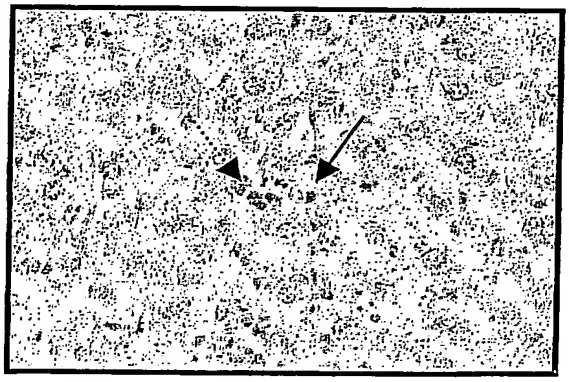

FIG. 4J

FIG. 5A
SEQ ID NO:1 - Human HMG1 amino acid sequence
1 mgkgdpkkpr gkmssyaffv qtcreehkkk hpdasvnfse fskkcserwk tmsakekgkf
61 edmakadkar yeremktyip pkgetkkkfk dpnapkrpps afflfcseyr pkikgehpgl
121 sigdvakklg emwnntaadd kqpyekkaak lkekyekdia ayrakgkpda akkgvvkaek
181 skkkkeeeed eedeedeeee edeededeee dddde

FIG. 5B
SEQ ID NO:2 - Mouse and Rat HMG1 amino acid sequence
1 mgkgdpkkpr gkmssyaffv qtcreehkkk hpdasvnfse fskkcserwk tmsakekgkf
61 edmakadkar yeremktyip pkgetkkkfk dpnapkrpps afflfcseyr pkikgehpgl
121 sigdvakklg emwnntaadd kqpyekkaak lkekyekdia ayrakgkpda akkgvvkaek
181 skkkkeeedd eedeedeeee eeeededeee dddde

FIG. 5C
SEQ ID NO:3 - HUMAN HMG2 amino acid sequence
1 mgkgdpnkpr gkmssyaffv qtcreehkkk hpdssvnfae fskkcserwk tmsakekskf
61 edmaksdkar ydremknyvp pkgdkkgkkk dpnapkrpps afflfcsehr pkiksehpgl
121 sigdtakklg emwseqsakd kqpyeqkaak lkekyekdia ayrakgksea gkkgpgrptg
181 skkknepede eeeeeeeded eeeededee

FIG. 5D
SEQ ID NO:4 - Human, mouse and rat HMG1 A box protein sequence
1 pdasvnfsef skkcserwkt msakekgkfe dmakadkary eremktyipp kget

FIG. 5E
SEQ ID NO:5 - Human, mouse and rat HMG1 B box protein sequence
1 napkrppsaf flfcseyrpk ikgehpglsi gdvakklgem wnntaaddkq pyekkaaklk
61 ekyekdiaa

FIG. 5F
SEQ ID NO:6 - forward PCR primer for human HMG1
gatgggcaaaggagatcctaag.

FIG. 5G
SEQ ID NO:7 - reverse PCR primer for human HMG1
gcggccgcttattcatcatcatcatcttc

FIG. 5H
SEQ ID NO:8 - forward PCR primer for -C mutant of human HMG1
gatgggcaaaggagatcctaag

FIG. 5I
SEQ ID NO:9 - reverse PCR primer for -C mutant of human HMG1
gcggccgctcacttgctttttcagccttgac

FIG. 5J
SEQ ID NO:10 - forward PCR primer for A+B boxes mutant of human HMG1
gagcataagaagaagcaccca

FIG. 5K
SEQ ID NO:11 - reverse PCR primer for A+B boxes mutant of human HMG1
gcggccgc tcacttgctttttcagccttgac

FIG. 5L
SEQ ID NO:12 - forward PCR primer for B box mutant of human HMG1
aagttcaaggatcccaatgcaaag

FIG. 5M
SEQ ID NO:13 - reverse PCR primer for B box mutant of human HMG1
gcggccgctcaatatgcagctatatccttttc

FIG. 5N
SEQ ID NO:14 - forward PCR primer for N'+A box mutant of human HMG1
gatgggcaaaggagatcctaag

FIG. 5O
SEQ ID NO:15 - reverse PCR primer for N'+A box mutant of human HMG1
tcacttttttgtctccccctttggg

1 mgkgdpkkpr gkmssyaffv qtcreehkkk hpdasvnfse fskkcserwk tmsakekgkf *rat # P07155*
1 mgkgdpkkpr gkmssyaffv qtcreehkkk hpdasvnfse fskkcserwk tmsakekgkf *mouse #AAA20508*
1 mgkgdpkkpt gkmssyaffv qtcreehkkk hpdasvnfse fskkcserwk tmsakekgkf *human #AAA64970*
A box

61 edmakadkar yeremktyip pkgetkkkfk dpnapkrpps afflfcseyr pkikgehpgl *rat*
61 edmakadkar yeremktyip pkgetkkkfk dpnapkrpps afflfcseyr pkikgehpgl *mouse*
61 edmakadkar yeremktyip pkgetkkkfk dpnapkrlps afflfcseyr pkikgehpgl *human*
B box

121 sigdvakklg emwnntaadd kqpyekkaak lkekyekdia ayrakgkpda akkgvvkaek *rat*
121 sigdvakklg emwnntaadd kqpyekkaak lkekyekdia ayrakgkpda akkgvvkaek *mouse*
121 sigdvakklg emwnntaadd kqpyekkaak lkekyekdia ayrakgkpda akkgvvkaek *human*

181 skkkkeeedd eedeedeeee eeeede deee dddde *rat*
181 skkkkeeedd eedeedeeee eeeede deee dddde *mouse*
181 skkkkeeeed eedeedeeee edeedeedeee dddde *human*

FIG. 6

FIG. 7A

NG_000897 DNA (bases 150-797)

ATGGGCAAAG GAGATCCTAA GAAGCCGACA GGCAAAATGT CATCATATGC
ATTTTTTGTG CAAACTTGTC GGGAGGAGCA TAAGAAGAAG CACCCAGATG
CTTCAGTCAA CTTCTCAGAG TTTTCTAAGA AGTGCTCAGA GAGGTGGAAG
ACCATGTCTG CTAAAGAGAA AGGAAAATTT GAAGATATGG CAAAGGCGGA
CAAGGCCCGT TATGAAAGAG AAATGAAAAC CTATATCCCT CCCAAAGGGG
AGACAAAAAA GAAGTTCAAG GATCCCAATG CACCCAAGAG GCTTCCTTCG
GCCTTCTTCC TCTTCTGCTC TGAGTATCGC CCAAAAATCA AAGGAGAACA
TCCTGGCCTG TCCATTGGTG ATGTTGCGAA GAAACTGGGA GAGATGTGGA
ATAACACTGC TGCAGATGAC AAGCAGCCTT ATGAAAAGAA GGCTGCGAAG
CTGAAGGAAA AATACGAAAA GGATATAGCT GCATATCGAG CTAAAGGAAA
GCCTGATGCA GCAAAAAAGG GAGTTGTCAA GGCTGAAAAA AGCAAGAAAA
AGAAGGAAGA GGAGGAAGAT GAGGAAGATG AAGAGGATGA GGAGGAGGAG
GAAGATGAAG AAGATGAAGA AGATGAAGAA GAAGATGATG ATGATGAA

FIG. 7B

NG_000897 Protein

MGKGDPKKPT GKMSSYAFFV QTCREEHKKK HPDASVNFSE FSKKCSERWK
TMSAKEKGKF EDMAKADKAR YEREMKTYIP PKGETKKKFK DPNAPKRLPS
AFFLFCSEYR PKIKGEHPGL SIGDVAKKLG EMWNNTAADD KQPYEKKAAK
LKEKYEKDIA AYRAKGKPDA AKKGVVKAEK SKKKKEEEED EEDEEDEEEE
EDEEDEEDEE EDDDDE

FIG. 7C

AF076674 DNA (bases 1-633)

ATGGGCAAAG GAGATCCTAA GAAGCCGAGA GGCAAAATGT CATCATATGC
ATTTTTTGTG CAAACTTGTC GGGAGGAGCA TAAGAAGAAG CACTCAGATG
CTTCAGTCAA CTTCTCAGAG TTTTCTAACA AGTGCTCAGA GAGGTGGAAG
ACCATGTCTG CTAAAGAGAA AGGAAAATTT GAGGATATGG CAAAGGCGGA
CAAGACCCAT TATGAAAGAC AAATGAAAAC CTATATCCCT CCCAAAGGGG
AGACAAAAAA GAAGTTCAAG GATCCCAATG CACCCAAGAG GCCTCCTTCG
GCCTTCTTCC TGTTCTGCTC TGAGTATCAC CCAAAAATCA AAGGAGAACA
TCCTGGCCTG TCCATTGGTG ATGTTGCGAA GAAACTGGGA GAGATGTGGA
ATAACACTGC TGCAGATGAC AAGCAGCCTG GTGAAAAGAA GGCTGCGAAG
CTGAAGGAAA AATACGAAAA GGATATTGCT GCATATCAAG CTAAAGGAAA
GCCTGAGGCA GCAAAAAAGG GAGTTGTCAA AGCTGAAAAA AGCAAGAAAA
AGAAGGAAGA GGAGGAAGAT GAGGAAGATG AAGAGGATGA GGAGGAGGAA
GATGAAGAAG ATGAAGAAGA TGATGATGAT GAA

FIG. 7D

AF076674 Protein

MGKGDPKKPR GKMSSYAFFV QTCREEHKKK HSDASVNFSE FSNKCSERWK
TMSAKEKGKF EDMAKADKTH YERQMKTYIP PKGETKKKFK DPNAPKRPPS
AFFLFCSEYH PKIKGEHPGL SIGDVAKKLG EMWNNTAADD KQPGEKKAAK
LKEKYEKDIA AYQAKGKPEA AKKGVVKAEK SKKKKEEEED EEDEEDEEEE
DEEDEEDDDD E

FIG. 7E

AF076676 DNA (bases 1-564)

ATGGGCAAAG GAGACCCTAA GAAGCCGAGA GGCAAAATGT CATCATATGC
ATTTTTTGTG CAAACTTGTC GGGAGGAGTG TAAGAAGAAG CACCCAGATG
CTTCAGTCAA CTTCTCAGAG TTTTCTAAGA AGTGCTCAGA GAGGTGGAAG
GCCATGTCTG CTAAAGATAA AGGAAAATTT GAAGATATGG CAAAGGTGGA
CAAAGACCGT TATGAAAGAG AAATGAAAAC CTATATCCCT CCTAAAGGGG
AGACAAAAAA GAAGTTCGAG GATTCCAATG CACCCAAGAG GCCTCCTTCG
GCCTTTTTGC TGTTCTGCTC TGAGTATTGC CCAAAAATCA AAGGAGAGCA
TCCTGGCCTG CCTATTAGCG ATGTTGCAAA GAAACTGGTA GAGATGTGGA
ATAACACTTT TGCAGATGAC AAGCAGCTTT GTGAAAAGAA GGCTGCAAAG
CTGAAGGAAA AATACAAAAA GGATACAGCT ACATATCGAG CTAAAGGAAA
GCCTGATGCA GCAAAAAAGG GAGTTGTCAA GGCTGAAAAA AGCAAGAAAA
AGAAGGAAGA GGAG

FIG. 7F

AF076676 Protein

MGKGDPKKPR GKMSSYAFFV QTCREECKKK HPDASVNFSE FSKKCSERWK
AMSAKDKGKF EDMAKVDKDR YEREMKTYIP PKGETKKKFE DSNAPKRPPS
AFLLFCSEYC PKIKGEHPGL PISDVAKKLV EMWNNTFADD KQLCEKKAAK
LKEKYKKDTA TYRAKGKPDA AKKGVVKAEK SKKKKEEE

FIG. 7G

AC010149 DNA (bases 75503-76117)

ATGGACAAAG CAGATCCTAA GAAGCTGAGA GGTGAAATGT TATCATATGC
ATTTTTTGTG CAAACTTGTC AGGAGGAGCA TAAGAAGAAG AACCCAGATG
CTTCAGTCAA GTTCTCAGAG TTTTTAAAGA AGTGCTCAGA GACATGGAAG
ACCATTTTTG CTAAAGAGAA AGGAAAATTT GAAGATATGG CAAAGGCGGA
CAAGGCCCAT TATGAAAGAG AAATGAAAAC CTATATCCCT CCTAAAGGGG
AGAAAAAAAA GAAGTTCAAG GATCCCAATG CACCCAAGAG GCCTCCTTTG
GCCTTTTTCC TGTTCTGCTC TGAGTATCGC CCAAAAATCA AAGGAGAACA
TCCTGGCCTG TCCATTGATG ATGTTGTGAA GAAACTGGCA GGGATGTGGA
ATAACACCGC TGCAGCTGAC AAGCAGTTTT ATGAAAAGAA GGCTGCAAAG
CTGAAGGAAA AATACAAAAA GGATATTGCT GCATATCGAG CTAAAGGAAA
GCCTAATTCA GCAAAAAAGA GAGTTGTCAA GGCTGAAAAA AGCAAGAAAA
AGAAGGAAGA GGAAGAAGAT GAAGAGGATG AACAAGAGGA GGAAAATGAA
GAAGATGATG ATAAA

FIG. 7H

AC010149 Protein

MDKADPKKLR GEMLSYAFFV QTCQEEHKKK NPDASVKFSE FLKKCSETWK
TIFAKEKGKF EDMAKADKAH YEREMKTYIP PKGEKKKKFK DPNAPKRPPL
AFFLFCSEYR PKIKGEHPGL SIDDVVKKLA GMWNNTAAAD KQFYEKKAAK
LKEKYKKDIA AYRAKGKPNS AKKRVVKAEK SKKKKEEEED EEDEQEEENE
EDDDK

FIG. 7I
AF165168 DNA (bases 729-968)
ATGGGCAAAG GAGATCCTAA GAAGCCGAGA GGCAAAATGT CATCATGTGC
ATTTTTTGTG CAAACTTGTT GGGAGGAGCA TAAGAAGCAG TACCCAGATG
CTTCAATCAA CTTCTCAGAG TTTTCTCAGA AGTGCCCAGA GACGTGGAAG
ACCACGATTG CTAAAGAGAA AGGAAAATTT GAAGATATGC CAAAGGCAGA
CAAGGCCCAT TATGAAAGAG AAATGAAAAC CTATATACCC

FIG. 7J
AF165168 Protein
MGKGDPKKPR GKMSSCAFFV QTCWEEHKKQ YPDASINFSE FSQKCPETWK
TTIAKEKGKF EDMPKADKAH YEREMKTYIP

FIG. 7K
XM_063129 DNA (bases 319-558)
AAACAGAGAG GCAAAATGCC ATCGTATGTA TTTTGTGTGC AAACTTGTCC
GGAGGAGCGT AAGAAGAAAC ACCCAGATGC TTCAGTCAAC TTCTCAGAGT
TTTCTAAGAA GTGCTTAGTG AGGGGGAAGA CCATGTCTGC TAAAGAGAAA
GGACAATTTG AAGCTATGGC AAGGGCAGAC AAGGCCCGTT ACGAAAGAGA
AATGAAAACA TATATCCCTC CTAAAGGGGA GACAAAAAAA

FIG. 7L
XM_063129 Protein
KQRGKMPSYV FCVQTCPEER KKKHPDASVN FSEFSKKCLV RGKTMSAKEK
GQFEAMARAD KARYEREMKT YIPPKGETKK

FIG. 7M
XM_066789 DNA (bases 1-258)
ATGGGCAAAA GAGACCCTAA GCAGCCAAGA GGCAAAATGT CATCATATGC
ATTTTTTGTG CAAACTGCTC AGGAGGAGCA CAAGAAGAAA CAACTAGATG
CTTCAGTCAG TTTCTCAGAG TTTTCTAAGA ACTGCTCAGA GAGGTGGAAG
ACCATGTCTG TTAAAGAGAA AGGAAAATTT GAAGACATGG CAAAGGCAGA
CAAGGCCTGT TATGAAAGAG AAATGAAAAT ATATCCCTAC TTAAAGGGGA
GACAAAAA

FIG. 7N
XM_066789 Protein
MGKRDPKQPR GKMSSYAFFV QTAQEEHKKK QLDASVSFSE FSKNCSERWK
TMSVKEKGKF EDMAKADKAC YEREMKIYPY LKGRQK

FIG. 7O
AF165167 DNA (bases 456-666)
ATGGGCAAAG GAGACCCTAA GAAGCCAAGA GAGAAAATGC CATCATATGC
ATTTTTTGTG CAAACTTGTA GGGAGGCACA TAAGAACAAA CATCCAGATG
CTTCAGTCAA CTCCTCAGAG TTTTCTAAGA AGTGCTCAGA GAGGTGGAAG
ACCATGCCTA CTAAACAGAA AGGAAAATTC GAAGATATGG CAAAGGCAGA
CAGGGCCCAT A

FIG. 7P
AF165167 Protein
MGKGDPKKPR EKMPSYAFFV QTCREAHKNK HPDASVNSSE FSKKCSERWK
TMPTKQKGKF EDMAKADRAH